

Bay Area Air Quality Management District

939 Ellis Street
San Francisco, CA 94109
(415) 771-6000

Proposed

MAJOR FACILITY REVIEW PERMIT

Issued To:
Fleischmann's Yeast
A Division of Burns Philp Food Inc.
Site #2300

Site Address:
921 98th Avenue
Oakland, CA 94603

Mailing Address:
921 98th Avenue
Oakland, CA 94603
(510)633-2229

Responsible Official - James Parker, Plant Manager
Facility Contact - James Parker, Plant Manager

Type of Facility: Yeast Manufacturing
Primary SIC: 2099
Product: Commercial Yeast

ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Ellen J. Garvey, Air Pollution Control Officer

Date

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I. STANDARD CONDITIONS

Administrative Requirements

The permit holder shall comply with all applicable requirements in BAAQMD Regulation 1 - General Provisions and Definitions (11/3/93); SIP Regulation 1 - General Provisions and Definitions (3/17/82); BAAQMD Regulation 2, Rule 1 - Permits, General Requirements (6/7/95); SIP Regulation 2, Rule 1 - Permits, General Requirements (2/1/95); BAAQMD Regulation 2, Rule 2 - Permits, New Source Review (6/7/95); SIP Regulation 2, Rule 2 - Permits, New Source Review and Prevention of Significant Deterioration (12/1/82); and BAAQMD Regulation 2, Rule 4 - Permits, Emissions Banking (6/15/94).

Conditions to Implement Regulation 2, Rule 6, Major Facility Review

This Major Facility Review Permit expires on ***[ENTER DATE 5 YEARS AFTER ISSUANCE]***. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than ***[6 MONTHS PRIOR TO EXPIRATION]*** and no earlier than ***[ONE YEAR PRIOR TO EXPIRATION]***. **If a complete application for renewal has not been submitted in accordance with these deadlines, the facility may not operate after *[DAY PRIOR TO EXPIRATION]*. (Regulation 2-6-307, 404.2, & 409.6; MOP Volume II, Part 3, §4.2)**

The permit holder shall comply with all conditions of this permit. Any non-compliance with the terms and conditions of this permit will constitute a violation of the law and will be grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)

In the event any enforcement action is brought as a result of a violation of any term or condition of this permit, the fact that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with such term or condition shall not be a defense to such enforcement action. (MOP Volume II, Part 3, §4.11)

This permit may be modified, revoked, reopened and reissued, or terminated for cause. (Regulation 2-6-307, 409.8, 415; MOP Volume II, Part 3, §4.11)

The filing of a request by the facility for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated non-compliance does not stay the applicability of any permit condition. (Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)

This permit does not convey any property rights of any sort, nor any exclusive privilege. (Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)

The permit holder shall supply any information that the District requests in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit within 30 days. (Regulation 1-441, Regulation 2-6-409.4 & 501; MOP Volume II, Part 3, §4.11)

Any records required to be maintained pursuant to this permit which the permittee considers to contain proprietary or trade secret information shall be prominently designated as such. Copies of any such proprietary or trade secret information which are provided to the District shall be maintained by the District in a locked confidential file, provided, however, that requests from

I. Standard Conditions (continued)

the public for the review of any such information shall be handled in accordance with the District's procedures set forth in Section 11 of the District Administrative Code. (Regulation 2-6-419; MOP Volume II, Part 3, §4.11)

The emissions inventory submitted with the application for this Major Facility Review Permit is an estimate of actual emissions for the time period stated and is included only as one means of determining applicable requirements for emission sources. It does not establish, or constitute a basis for establishing, any new emission limitations. (MOP Volume II, Part 3, §4.11)

Minor Permit Modification Procedures

Notwithstanding the provisions set forth in Regulation 2, Rule 6, Major Facility Review, Section 411, Reports to EPA and Public Petitions for Major Facility Review Permits; Section 412, Public Participation, Major Facility Review Permit Issuance; and Section 414, Minor Permit Modification Procedures:

1. Advance public notice and EPA review shall not be required for any proposed minor permit modification. Once per calendar quarter, the District shall publish a list that includes any minor permit modification issued during the previous quarter.
2. For any minor permit modification involving an emission increase from any source or group of sources equal to or greater than: 5 tons per year of a regulated air pollutant; 2 tons per year of any single hazardous air pollutant; and 5 tons per year of any combination of hazardous air pollutants, the District shall provide to EPA a copy of each relevant application or a summary of the application, and a copy of each final permit revision.
3. For any minor permit modification involving an emission increase from any source or group of sources of less than: 5 tons per year of a regulated air pollutant, 2 tons per year of any single hazardous air pollutant; and 5 tons per year of any combination of hazardous air pollutants, the District shall not submit a copy of the relevant application, a summary of the application, or final permit revision to EPA. EPA shall not object to any permit modification involving an emission increase below the levels described herein. Such permit modifications shall be incorporated as attachments to this permit during the remaining term of the permit, and incorporated into the body of the permit as part of the five-year permit renewal.

Requirement to Pay Fees

The permit holder shall pay annual fees in accordance with District Regulation 3, including Schedule P. (Regulation 2-6-402 & 409.13, Regulation 3; MOP Volume II, Part 3, §4.12)

Inspection and Entry

Access to Facility: The permit holder shall provide reasonable access to the facility and equipment which is subject to this permit to the APCO and/or to his or her designee. (Regulation 1-440, Regulation 2-6-409.3; MOP Volume II, Part 3, §4.14)

Records

Notwithstanding the specific wording in any requirement, all records for federally enforceable requirements shall be maintained for at least five years from the date of entry. (Regulation 2-6-501, Regulation 3; MOP Volume II, Part 3, §4.7)

I. Standard Conditions (continued)

Monitoring Reports

All required monitoring reports must be submitted to the District at least once every six months. All instances of non-compliance shall be clearly identified in these reports. The reports shall be certified by the responsible official as true, accurate, and complete. (Regulation 2-6-502, Regulation 3; MOP Volume II, Part 3, §4.7)

Compliance Certification

Compliance certifications shall be submitted annually by the responsible official of this facility to the Bay Area Air Quality Management District and to the Environmental Protection Agency. (Regulation 2-6-409.9; MOP Volume II, Part 3, §4.15)

Emergency Provisions

The permit holder may seek relief from enforcement action in the event of a breakdown, as defined by Regulation 1-208 of the District's Rules and Regulations, by following the procedures contained in Regulations 1-431 and 1-432. The District will thereafter determine whether breakdown relief will be granted in accordance with Regulation 1-433. (MOP Volume II, Part 3, §4.8)

The permit holder may seek relief from enforcement action for a violation of any of the terms and conditions of this permit caused by conditions beyond the permit holder's reasonable control by applying to the District's Hearing Board for a variance pursuant to Health and Safety Code Section 42350. The Hearing Board will determine after notice and hearing whether variance relief should be granted in accordance with the procedures and standards set forth in Health and Safety Code Section 42350 et seq. Any variance granted by the Hearing Board from any term or condition of this permit which lasts longer than 90 days will be subject to EPA approval. (MOP Volume II, Part 3, §4.8)

Notwithstanding the foregoing, the granting by the District of breakdown relief or the issuance by the Hearing Board of a variance will not provide relief from federal enforcement unless the Major Facility Review Permit has been modified pursuant to Regulation 2, Rule 6. (MOP Volume II, Part 3, §4.8)

Severability

In the event that any provision of this permit is invalidated by a court or tribunal of competent jurisdiction, or by the Administrator of the EPA, all remaining portions of the permit shall remain in full force and effect. (Regulation 2-6-409.5; MOP Volume II, Part 3, §4.10)

II. EQUIPMENT LIST

A. Permitted Source List

Each of the following sources has been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2-1-302.

Table II-A

S-#	Description	Make or Type	Model	Capacity
S-1	Steam Boiler	BMW Sterling	W style	37 MMBtu/hr
S-2	Steam Boiler	Zurn Keystone	SN 100385	49.9 MMBtu/hr
S-3	Yeast Dryer	Bepex Fluid Bed	Custom	180 ft ²
S-10	Fermenter #2	Custom	Custom	55,826 gallons
S-11	Fermenter #3	Custom	Custom	59,843 gallons
S-12	Fermenter #4	Custom	Custom	55,826 gallons
S-13	Fermenter #7	Custom	Custom	18,916 gallons
S-14	Fermenter A	Custom	Custom	61,260 gallons
S-15	Fermenter B	Custom	Custom	61,291 gallons

B. Abatement Device List

Table II-B

A-#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Required Efficiency
A-3	Wet Cyclone Scrubber	S-3	BAAQMD Cond. #14319 Part 2 (BACT)	50,000 scfm	0.01 g/dscf

III. GENERALLY APPLICABLE EMISSION REQUIREMENTS

The permit holder shall comply with the applicable requirements specified in the BAAQMD and SIP Rules and Regulations cited below. The District has determined that these requirements would not be violated under normal, routine operations, and that no additional periodic monitoring or reporting to demonstrate compliance is warranted. In cases where a requirement, in addition to being generally applicable, is also specifically applicable to one or more sources, the requirement and the source are also included in Part IV, Applicable Requirements, of this permit. The dates in parenthesis in the Title column are the dates of adoption or most recent amendment or for SIP requirements, the most recent date of EPA approval.

Table III

Applicable Requirement	Regulation Title or Description of Requirement	SIP-approved/ FE (Y/N)	Sources/Operations Covered
BAAQMD Regulation 1	General Provisions and Definitions (11/3/93)	Y ¹	all
BAAQMD Regulation 4	Air Pollution Episode Plan (3/20/91)	Y	facility
BAAQMD Regulation 5	Open Burning (11/2/94)	Y ¹	facility
BAAQMD Regulation 6	Particulate Matter and Visible Emissions (12/19/90)		
6-301	Ringelmann Number 1 Limitation	Y ¹	all, except temporary sandblasting, open fires, and operations subject to BAAQMD §6-303, 304, or 306
6-303	Ringelmann Number 2 Limitation	Y	sources listed in subsections
6-305	Visible Particles	Y	all, except temporary sandblasting and open fires

(continued)

III. Generally Applicable Emission Requirements (continued)

Table III (continued)

Applicable Requirement	Regulation Title or Description of Requirement	SIP-approved/ FE (Y/N)	Sources/Operations Covered
6-310	Particulate Weight Limitation	Y	all, except temporary sandblasting and open fires
6-401	Appearance of Emissions	Y	all
BAAQMD Regulation 7	Odorous Substances (3/17/82)	N	all
BAAQMD Regulation 8, Rule 1	Organic Compounds - General Provisions (6/15/94)	Y	solvent cleaning operations, except operations subject to Reg. 8-2 or 8-4 which meet minimum abatement requirements
BAAQMD Regulation 8, Rule 3	Organic Compounds - Architectural Coatings (12/20/95)	Y ¹	application of architectural coating
BAAQMD Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (12/20/95)	Y ¹	application of or specifications for aerosol products
BAAQMD Regulation 8, Rule 51	Organic Compounds - Adhesive and Sealant Products (12/20/95)	N	application or specification of adhesive or sealant products

(continued)

¹ There are differences between the current BAAQMD rule and the version of the rule in the SIP. For specific information, contact the District's Rule Development Section of the Enforcement Division. All sources must comply with both versions of the rule until US EPA has reviewed and approved (or disapproved) the District's revision of the regulation.

III. Generally Applicable Emission Requirements (continued)

Table III (continued)

Applicable Requirement	Regulation Title or Description of Requirement	SIP-approved/ FE (Y/N)	Sources/Operations Covered
BAAQMD Regulation 11, Rule 2	Hazardous Pollutants - Asbestos Demolition, Renovation and Manufacturing (12/4/91)	Y	asbestos surfacing/coating, installation, demolition, disposal
BAAQMD Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (7/11/90)	Y ¹	non-permanent abrasive blasting operations

¹ There are differences between the current BAAQMD rule and the version of the rule in the SIP. For specific information, contact the District's Rule Development Section of the Enforcement Division. All sources must comply with both versions of the rule until US EPA has reviewed and approved (or disapproved) the District's revision of the regulation.

IV. APPLICABLE REQUIREMENTS

The permit holder shall operate in compliance with all requirements specified in the sections of the applicable rules and regulations and permit conditions cited below. The text of all permit conditions cited is included in Part VII, Permit Conditions, of this permit. All other text may be found in the regulations themselves. The dates in parenthesis in the Regulation Title column are the dates of adoption or most recent amendment or for SIP requirements, the most recent date of EPA approval.

Table IV-A

S-1: Steam Boiler #1

Applicable Requirement	Regulation Title or Description of Requirement	SIP-approved/ FE (Y/N)	Future Effective Date
BAAQMD Regulation 9, Rule 1	Inorganic Gaseous Pollutants - Sulfur Dioxide (3/15/95)		
9-1-302	General Emission Limitations, or 9-1-304	Y	
9-1-304	Fuel Burning - Liquid and Solid Fuels, or 9-1-302	Y	
BAAQMD Regulation 9, Rule 7	Inorganic Gaseous Pollutants - Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters (9/16/92)		
9-7-111	Limited Exemption; Low Fuel Usage	N	
9-7-304	Low Fuel Usage Requirements	N	
9-7-304.1	Operating Standard, O ₂	N	
9-7-304.2	Operating Standard, Tuning	N	
9-7-304.3	Performance Standards, NO _x and CO	N	
9-7-305	Natural Gas Curtailment - Non-Gaseous Fuel	N	
9-7-305.1	Performance Standard, NO _x	N	
9-7-305.2	Performance Standard, CO	N	
9-7-306	Equipment Testing - Non-Gaseous Fuel	N	
9-7-306.1	Performance Standard, NO _x	N	
9-7-306.2	Performance Standard, CO	N	
9-7-306.3	Operating Standard, Equipment Testing	N	
9-7-403	Initial Compliance Demonstration	N	
9-7-501	Combinations of Different Fuels	N	
9-7-502	Modified Maximum Heat Input	N	

(continued)

IV. Applicable Requirements (continued)

Table IV-A (continued)

S-1: Steam Boiler #1

Applicable Requirement	Regulation Title or Description of Requirement	SIP-approved/ FE (Y/N)	Future Effective Date
9-7-503	Records	N	
9-7-503.1	§304.2 Records	N	
9-7-503.2	Records, Curtailment	N	
9-7-503.3	§306.3 Records	N	
9-7-503.4	§403 Records and Record Retention	N	
9-7-504	Low Fuel Use - Monitoring and Records	N	
9-7-504.1	Monitoring - Throughput	N	
9-7-504.2	Records - Usage, HHV, Record Retention	N	
9-7-601	Determination of NO _x	N	
9-7-602	Determination of CO and Stack-Gas O ₂	N	
9-7-603	Compliance Determination	N	
9-7-604	Tune-Up Procedures	N	
9-7-605	Determination of Higher Heating Value	N	
BAAQMD Condition # 12681			
part 1	Therm Usage (Regulation 9-7-111)	N	
part 2	Usage Meter (Regulation 9-7-504)	N	

IV. Applicable Requirements (continued)

Table IV-B

S-2: Steam Boiler #2

Applicable Requirement	Regulation Title or Description of Requirement	SIP-approved/ FE (Y/N)	Future Effective Date
BAAQMD Regulation 9, Rule 1	Inorganic Gaseous Pollutants - Sulfur Dioxide (3/15/95)		
9-1-302	General Emission Limitations, or 9-1-304	Y	
9-1-304	Fuel Burning - Liquid and Solid Fuels, or 9-1-302	Y	
BAAQMD Regulation 9, Rule 7	Inorganic Gaseous Pollutants - Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters (9/16/92)		
9-7-301	Emission Limits - Gaseous Fuel	N	
9-7-301.1	Performance Standard, NOx	N	
9-7-301.2	Performance Standard, CO	N	
9-7-302	Emission Limits - Non-Gaseous Fuel	N	
9-7-302.1	Performance Standard, NOx	N	
9-7-302.2	Performance Standard, CO	N	
9-7-303	Emission Limits - Gaseous and Non-Gaseous Fuel, NOx and CO	N	
9-7-305	Natural Gas Curtailment - Non-Gaseous Fuel	N	
9-7-305.1	Performance Standard, NOx	N	
9-7-305.2	Performance Standard, CO	N	
9-7-306	Equipment Testing - Non-Gaseous Fuel	N	
9-7-306.1	Performance Standard, NOx	N	
9-7-306.2	Performance Standard, CO	N	
9-7-306.3	Operating Standard, Equipment Testing	N	
9-7-403	Initial Compliance Demonstration	N	
9-7-501	Combinations of Different Fuels	N	
9-7-502	Modified Maximum Heat Input	N	
9-7-503	Records	N	
9-7-503.1	§304.2 Records	N	
9-7-503.2	Records, Curtailment	N	
9-7-503.3	§306.3 Records	N	
9-7-503.4	§403 Records and Record Retention	N	

(continued)

IV. Applicable Requirements (continued)

Table IV-B (continued)

S-2: Steam Boiler #2

Applicable Requirement	Regulation Title or Description of Requirement	SIP-approved/ FE (Y/N)	Future Effective Date
9-7-601	Determination of NO _x	N	
9-7-602	Determination of CO and Stack-Gas O ₂	N	
9-7-603	Compliance Determination	N	
9-7-605	Determination of Higher Heating Value	N	
BAAQMD Condition # 260			
part 1	Natural gas usage (Cumulative Increase)	Y	
part 2	Fuel oil firing situational limit (Cumulative Increase)	Y	
part 3	Fuel oil usage and sulfur concentration limits (Cumulative Increase)	Y	

IV. Applicable Requirements (continued)

Table IV-C

S-3: Yeast Dryer

Applicable Requirement	Regulation Title or Description of Requirement	SIP-approved/ FE (Y/N)	Future Effective Date
BAAQMD Condition # 14319			
part 1	Particulate concentration limit (BACT)	Y	
part 2	Abatement requirement (BACT)	Y	

IV. Applicable Requirements (continued)

Table IV-D

S-10: Fermenter #2
S-11: Fermenter #3
S-12: Fermenter #4
S-13: Fermenter #7
S-14: Fermenter A
S-15: Fermenter B

Applicable Requirement	Regulation Title or Description of Requirement	SIP-approved/ FE (Y/N)	Future Effective Date
BAAQMD Regulation 8 Rule 2	Organic Compounds - Miscellaneous Operations (6/15/94)		
8-2-111	Exemption - Food Preparation; Provided the best modern practices are used.	Y	
BAAQMD Condition # 13149			
part 1	Fermenter gas carbon concentration limits (Regulation 8-2-111, RACT)	Y	
part 2	Fermenter off-property odor correction or abatement requirement (Regulation 1-301)	N	
part 3	Records		
part 3a	Fermenter mash ethanol concentrations (Regulation 8-2-111, RACT)	Y	
part 3b	Yeast production data and measurements (AB-2588)	N	
part 3c	Monitor weekly calibration requirement (Regulation 8-2-111, RACT)	Y	

V. PERMIT CONDITIONS

Any condition that is preceded by an asterisk is not federally enforceable.

A. Source Specific Permit Conditions

Condition 12681

For S-1 Steam Boiler #1

1. Not more than 89,000 therms per year shall be used at S-1. [basis: Regulation 9-7-111]
2. To demonstrate compliance with condition 1, the owner/operator shall install and maintain a non resettable totalizing meter for each fuel type, unless the operator applies for and receives written approval from the District to use an alternate method for measuring the cumulative annual fuel usage. [basis: Regulation 9-7-504]

Condition 260

For S-2 Steam Boiler #2

1. In order to comply with Regulation 2-2-301, natural gas usage may not exceed 700,000 standard cubic feet per day for Source #2. [basis: Cumulative Increase]
2. Firing on fuel oil shall be permitted only during curtailment of natural gas by PG & E or for short test periods lasting not longer than 2 hours per month. [basis: Cumulative Increase]
3. The total fuel oil usage for Source #2 shall not exceed either 2,150 gallons/day of fuel oil containing a maximum of 0.5% sulfur by weight or 3,500 gallons per day of fuel oil containing a maximum of 0.15% sulfur by weight. [basis: Cumulative Increase]

Condition 14319

For Yeast Dryer S-3

1. The concentration of particulates in dryer S-3 exhaust gas, after abatement, shall not exceed 0.01 grains per dry standard cubic foot. [basis: BACT, Cumulative Increase]
2. The yeast dryer S-3 shall be abated by wet cyclone scrubber A-3 during all periods of operation. Wet cyclone scrubber A-3 shall be properly operated and maintained. [basis: BACT]

V. Permit Conditions (continued)

A. Source Specific Permit Conditions (continued)

Condition 13149

For Fermenters S-10, S-11, S-12, S-13, S-14 and S-15

- 1.² The total carbon concentration in the exhaust gas from sources S-10, S-11, S-12, S-13, S-14 and S-15 shall not exceed the following limits on a dry basis, averaged over the batch duration. [basis: Regulation 8-2-111, RACT]

Fermentation Type	Fermentation Products	Offgas VOC Concentration (as carbon)
First Generation Stock	Liquid Yeast for Sale	300 ppmv
	Pitch Yeast for Trade	450 ppmv
	Pitch Yeast for First Generation	900 ppmv

2. Fermenters causing an off-property odor nuisance problem per District Regulations 7-302 or 1-301, shall be managed to reduce or contain odors to comply with District regulations. Within 72 hours of the incident, the owner/operator shall submit to the District, a summary of the problem(s) causing the odor and clearly outline all corrective and/or preventive measures taken. [basis: Regulation 1-301]

² Condition is federally enforceable only for precursor organic compound emissions, not for acetaldehyde emissions.

V. Permit Conditions (continued)

A. Source Specific Permit Conditions (continued)

Condition 13149 (continued)

For Fermenters S-10, S-11, S-12, S-13, S-14 and S-15:

3. The following records shall be maintained in a District approved log. These records shall be kept on site and made available for District inspection for at least 36 months from the date on which the record was made.
 - a)³ The mash ethanol concentration shall be recorded, using a District approved monitor, at least once per hour during each fermentation batch, and the average carbon concentration shall be calculated and recorded for each batch to demonstrate compliance with condition 1 above. The facility shall demonstrate annually, the correlation between the mash ethanol concentration and the exhaust gas VOC concentration. These data shall be used to update the correlation factor on an annual basis and within 30 days of the permit renewal date. A report detailing the data and the changes to the correlation factor shall be submitted to the District for review and approval within 30 days of the annual renewal date. [basis: Regulation 8-2-111, RACT]
 - b) All yeast production data and measurements needed to determine actual emissions from the facility annually. [basis: AB2588]
 - i) The number of each type of yeast batch (trade, stock, or first generation), and
 - ii) The annual production of yeast from each type of fermentation process.
 - iii) The average air flow rate for each type of fermentation.
 - c)³ The VOC measuring instrument calibrations shall be recorded. [basis: Regulation 8-2-111, RACT]

B. Facility-wide Permit Conditions

None

³ Condition is federally enforceable only for precursor organic compound emissions, not for acetaldehyde emissions.

VI. APPLICABLE EMISSION LIMITS & COMPLIANCE MONITORING REQUIREMENTS

The following tables indicate the type of compliance monitoring required for each applicable emission limit. The monitoring frequency indicates whether periodic (P) or continuous (C) monitoring is required. No monitoring (N) has been required if the current applicable rule or regulation does not require monitoring and the operation is unlikely to deviate from the applicable emission limit based upon the nature of the operation.

Table VI-A

S-1: Steam Boiler #1

Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NO _x , SO ₂ and CO	9-7-111	N		< 90,000 therms / 12 months	Regulation 9-7-504	C	meter and fuel records
SO ₂	Regulation 9-1-302	Y		≤ 300 ppm SO ₂ , dry	None	N	
	9-1-304	Y		≤ 0.5% by weight, fuel sulfur conc.	None	N	
NO _x	Regulation 9-7-301.1	N		30 ppmv @ 3% O ₂	None	N	
	9-7-302.1	N		40 ppmv @ 3% O ₂	None	N	
	9-7-303	N		30-40 ppmv @ 3% O ₂	None	N	
	9-7-305.1	N		150 ppmv dry, @ 3% O ₂	None	N	
	9-7-306.1	N		150 ppmv dry, @ 3% O ₂	None	N	
NO _x and CO	9-7-306.3	N		48 hours non-gaseous fuel testing	Regulation 9-7-503.3	N	test records
CO	9-7-301.2	N		400 ppmv @ 3% O ₂	None	N	
	9-7-302.2	N		400 ppmv @ 3% O ₂	None	N	
	9-7-303	N		400 ppmv @ 3% O ₂	None	N	
	9-7-305.2	N		400 ppmv dry, @ 3% O ₂	None	N	
	9-7-306.2	N		400 ppmv dry, @ 3% O ₂	None	N	

VI. Applicable Emission Limits & Compliance Monitoring Requirements (continued)

Table VI-B

S-2: Steam Boiler #2

Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO ₂	Regulation 9-1-302	Y		≤ 300 ppm SO ₂ , dry			
	9-1-304	Y		≤ 0.5% by weight, fuel sulfur concentration			
NO _x	Regulation 9-7-305.1	N		150 ppmv dry, @ 3% O ₂	None	N	
	9-7-306.1	N		150 ppmv dry, @ 3% O ₂	None	N	
CO	Regulation 9-7-305.2	N		400 ppmv dry, @ 3% O ₂	None	N	
	9-7-306.2	N		400 ppmv dry, @ 3% O ₂	None	N	
NO _x and CO	Regulation 9-7-304.1	N		≤ 3% O ₂ , dry, volume basis, exhaust concentration	None	N	
	9-7-306.3	N		48 hours non-gaseous fuel testing	Regulation 9-7-503.3	N	test records

Table VI-C

S-3: Yeast Dryer

Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
PM	BAAQMD Condition 14319 part 1	Y		0.01 grains/dscf	None	N	

VI. Applicable Emission Limits & Compliance Monitoring Requirements (continued)

Table VI-D

S-10: Fermenter #2

S-11: Fermenter #3

S-12: Fermenter #4

S-13: Fermenter #7

S-14: Fermenter A

S-15: Fermenter B

Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
POC and acetaldehyde	BAAQMD Condition 13149 part 1	Y		300 ppmv carbon trade yeast batch average, as emitted	BAAQMD Condition 13149 part 3a	P	parametric sampling and analysis
	BAAQMD Condition 13149 part 1	Y		450 ppmv carbon first generation yeast batch average, as emitted	BAAQMD Condition 13149 part 3a	P	parametric sampling and analysis
	BAAQMD Condition 13149 part 1	Y		900 ppmv carbon stock yeast batch average, as emitted	BAAQMD Condition 13149 part 3a	P	parametric sampling and analysis

VII. TEST METHODS

The test methods associated with the emission limit of a District regulation are generally found in Section 600 of the regulation. The following table indicates only the test methods associated with the emission limits referenced in Section V - Applicable Emission Limits & Compliance Monitoring Requirements.

Table VII

Applicable Requirement	Description of Requirement	Acceptable Test Methods	SIP-Approved
BAAQMD Condition # 13149 part 1	Carbon concentration limits	1) BAAQMD Manual of Procedures, Volume IV, ST-7, or 2) EPA Method 25 or 25A	N Y
BAAQMD Condition # 14319 part 1	Particulate concentration limits	Manual of Procedures, Volume IV, ST-15, Particulates Sampling	N
BAAQMD 9-1-302	General Emission Limitation	Manual of Procedures, Volume IV, ST-19A, Sulfur Dioxide, Continuous Sampling, or ST-19B, Total Sulfur Oxides Integrated Sample	N
BAAQMD 9-1-304	Fuel Burning (Liquid and Solid Fuels)	Manual of Procedures, Volume III, Method 10, Determination of Sulfur in Fuel Oils.	N
BAAQMD 9-7-301.1	Performance Standard, NOx, Gaseous Fuel	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling	N N
BAAQMD 9-7-301.2	Performance Standard, CO, Gaseous Fuel	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling	N N
BAAQMD 9-7-302.1	Performance Standard, NOx, Non-Gaseous Fuel	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling	N N
BAAQMD 9-7-302.2	Performance Standard, CO, Non-Gaseous Fuel	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling	N N
BAAQMD 9-7-303	Emission Limits - Gaseous and Non-Gaseous Fuel, NOx and CO	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling, Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling	N N N

(continued)

VI. Test Methods (continued)

Table VII (continued)

Applicable Requirement	Description of Requirement	Acceptable Test Methods	SIP-Approved
BAAQMD 9-7-304.1	Low Fuel Usage Requirements, O ₂ Operating Standard, O ₂	Manual of Procedures, Volume IV, ST-14, Oxygen, Continuous Sampling	N
BAAQMD 9-7-305.1	Natural Gas Curtailment Performance Standard, NO _x	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling or ST-13B, Oxides of Nitrogen, Iterated Sample and ST-14, Oxygen, Continuous Sampling	N N N
BAAQMD 9-7-305.2	Natural Gas Curtailment Performance Standard, CO	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling	N N
BAAQMD 9-7-306.1	Equipment Testing - Non-Gaseous Fuel NO _x Performance Standard	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling or ST-13B, Oxides of Nitrogen, Iterated Sample and ST-14, Oxygen, Continuous Sampling	N N N
BAAQMD 9-7-306.2	Equipment Testing - Non-Gaseous Fuel CO Performance Standard	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling	N N

VIII. GLOSSARY

BAAQMD

Bay Area Air Quality Management District

BACT

Best Available Control Technology

CAA

The federal Clean Air Act

CAAQS

California Ambient Air Quality Standards

CEQA

California Environmental Quality Act

CFR

The Code of Federal Regulations. 40 CFR contains the implementing regulations for federal environmental statutes such as the Clean Air Act. Parts 50-99 of 40 CFR contain the requirements for air pollution programs.

CO

Carbon Monoxide

Cumulative Increase

The sum of permitted emissions from each new or modified source since a specified date. Used to determine whether threshold-based requirements are triggered.

District

The Bay Area Air Quality Management District

EPA

The federal Environmental Protection Agency.

Excluded

Not subject to any District Regulations.

Federally Enforceable, FE

All limitations and conditions which are enforceable by the Administrator of the EPA including those requirements developed pursuant to 40 CFR Part 51, subpart I (NSR), Part 52.21 (PSD), Part 60, (NSPS), Part 61, (NESHAPs), Part 63 (HAP), and Part 72 (Permits Regulation, Acid

Rain), and also including limitations and conditions contained in operating permits issued under an EPA-approved program that has been incorporated into the SIP.

VIII. Glossary (continued)

HAP

Hazardous Air Pollutant. Any pollutant listed pursuant to Section 112(b) of the Act. Also refers to the program mandated by Title I, Section 112, of the Act and implemented by both 40 CFR Part 63, and District Regulation 2, Rule 5.

Major Facility

A facility with potential emissions of regulated air pollutants greater than or equal to 100 tons per year, greater than or equal to 10 tons per year of any single hazardous air pollutant, and/or greater than or equal to 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity as determined by the EPA administrator.

MFR

Major Facility Review. The District's term for the federal operating permit program mandated by Title V of the Act and implemented by District Regulation 2, Rule 6.

MOP

The District's Manual of Procedures.

NAAQS

National Ambient Air Quality Standards

NESHAPS

National Emission Standards for Hazardous Air Pollutants. Contained in 40 CFR Part 61.

NMHC

Non-methane Hydrocarbons

NO_x

Oxides of nitrogen.

NSPS

Standards of Performance for New Stationary Sources. Federal standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the Act, and implemented by both 40 CFR Part 60 and District Regulation 10.

NSR

New Source Review. A federal program for preconstruction review and permitting of new and modified sources of air pollutants for which the District is classified "non-attainment". Mandated by Title I of the Clean Air Act and implemented by 40 CFR Parts 51 and 52 as well as District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

Offset Requirement

VIII. Glossary (continued)

A New Source Review requirement to provide federally enforceable emission offsets at a specified ratio for the emissions from a new or modified source and any pre-existing cumulative increase minus any on site contemporaneous emission reduction credits. Applies to emissions of POC, NO_x, PM₁₀, and SO₂.

Phase II Acid Rain Facility

A facility that generates electricity for sale through fossil-fuel combustion and by virtue of certain other characteristics (defined in Regulation 2, Rule 6) is subject to Titles IV and V of the Clean Air Act.

POC

Precursor Organic Compounds

PM

Total Particulate Matter

PM₁₀

Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns

PSD

Prevention of Significant Deterioration. A federal program for permitting new and modified sources of air pollutants for which the District is classified "attainment" of the National Air Ambient Quality Standards. Mandated by Title I of the Act and implemented by both 40 CFR Part 52 and District Regulation 2, Rule 2.

SIP

State Implementation Plan. State and District programs and regulations approved by EPA and developed in order to attain the National Ambient Air Quality Standards. Mandated by Title I of the Act.

SO₂

Sulfur dioxide

Title V

Title V of the federal Clean Air Act. Requires a federally enforceable operating permit program for major and certain other facilities.

VOC

Volatile Organic Compounds

VIII. Glossary (continued)

Units of Measure:

bhp	=	brake-horsepower
Btu	=	British Thermal Unit
g	=	grams
gal	=	gallon
hp	=	horsepower
hr	=	hour
lb	=	pound
in	=	inches
max	=	maximum
m ²	=	square meter
min	=	minute
MM	=	million
ppmv	=	parts per million, by volume
ppmw	=	parts per million, by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
scfm	=	standard cubic feet per minute
yr	=	year